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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,479	09/13/2001	Siegfried Schweidler	PD990014	6074

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Thomson Multimedia Licensing
PO Box 5312
Princeton, NJ 08540

EXAMINER

LI, ZHUO H

ART UNIT	PAPER NUMBER
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2185

MAIL DATE	DELIVERY MODE
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08/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/936,479

Applicant(s)

SCHWEIDLER ET AL.

Examiner

Zhuo H. Li

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office action is in responds to the amendment filed on 7/19/2007, claims 1-9 are pending in the application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Gillard et al. (US PAT. 5,404,166 hereinafter Gillard).

Regarding claim 1, Gillard disclose a method for the management of data received via a serial data bus in a receiving device, i.e., block formatter (10, figure 1), comprising the steps of receiving data transmitted in bus packets, i.e., data steam having a variable length (col. 3 line 54 through col. 4 line 8), each bus packet (80, figure 3) having a header(85, figure 3) and a payload data field, i.e., video data section (90, figure 3) and (col. 4 lines 13-16), the payload data field being divided into a number of data blocks having a defined length, i.e., fixed length data block (col. 4 lines 1-8, lines 17-21 and col. 6 lines 23-26), a data block consisting of a plurality of data words, the plurality being a fixed amount, i.e., buffer (160, figure 4) resided within the block formatter of the input side wherein the buffer (160) comprises four 8-bit latches, concatenated

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together to form the 32-bit wide buffer, wherein the each of the 8-bit latches are in a fixed length format to store the incoming variable length data into a fixed length format latches (col. 5 line 55 through col. 6 line 1 and col. 6 lines 47-53), a combination of a defined number n of data blocks forming a data source packet of fixed length, i.e., a count accumulator (125, figure 4) maintains a count of the cumulative lengths of payload data field related to the video data steam, these counts are then summed to generate a total count, when the total count reaches the available length of the video data section, and end of block signal is generated by the count accumulator, section-by-section transmission of the data source packet within the framework of data blocks being permitted, i.e., the video data steam stored in the buffer (160) are transferred out to the FIFO buffer (170, figure 4) in a fixed length format, then transferred out to multiplexers (210, 220 and 230) by sequence in a 8-bit data words format (col. 6 line 47 through col. 7 line 57, and figures 5-6), and carrying out a modulo- n counting of the data blocks in order to determine the data source packet boundaries, and in that the beginning of a new data source packet is signaled to a memory management device at the beginning of the next counting interval, i.e., format accumulator (120) generates a 5-bit output signal representing a modulo-32 count of the code length of valid luminance Huffman codes received during the formatting of a current data block, count accumulator (125) maintains a count of the cumulative lengths of payload data field related to the video data steam, these counts are then summed to generate a total count, when the total count reaches the available length of the video data section, and end of block signal is generated by the count accumulator, a boundary accumulator (126, figure 3) incorporate with pointer, count accumulator and header with starting address indicative of the position of the video data, to

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determining the end of each variable length video data stream in a fixed length blocks (col. 4 line 34 through col. 5 line 35).

Regarding claim 5, the limitations of the claim are rejected as the same reasons set forth in claim 1.

Regarding claim 8, Gillard discloses the counter, i.e., count accumulator (125) by which data are counted in particular in units of bytes and which outputs a data block counting signal if the number of data that have been countered are as many as defined as belonging a data block (col. 4 line 34 through col. 5 line 35)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Gillard et al. (US PAT. 5,404,166 hereinafter Gillard).

Regarding claim 4, Gillard differs from the claimed invention in not specifically teaches wherein the defined number n of data blocks of a data source packet corresponds to the number 8 and the modulo- n counting is correspondingly modulo-8 counting. However, it is old and notoriously well known in the art of having the defined number of n data blocks corresponding to the number of 2 to power x , where $x = 1, 2, 3, \dots$, in which 8 is equal to 2 to power 3. In addition, utilizing modulo-8 counter do not have a disclosed purpose nor overcome any deficiencies in the prior art such that the number of n of data blocks of a data source packet may contain any number, i.e., 2, 4, 8, Noted Gillard teaches the variable video data frame stored in a plurality of fixed length data block in 8-bit data words (col. 5 line 55 through col. 6 line 1), and count accumulator (125) maintains a count of the cumulative lengths of payload data field related to the video data steam, these counts are then summed to generate a total count, when the total count reaches the available length of the video data section, and end of block signal is generated by the count accumulator, a boundary accumulator (126, figure 3) incorporate with pointer, count accumulator and header with starting address indicative of the position of the video data, to determining the end of each variable length video data steam in a fixed length blocks (col. 4 line 34 through col. 5 line 35). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Gillard in utilizing modulo-8 counter for counting 8 of data blocks of a data source packet, as disclosed supra, because applicant does not disclose that the number 8 and modulo-8 counting, as opposed to other size, overcome a deficiency in the prior art or for any stated purpose.

7. Claims 2-3 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillard et al. (US PAT. 5,404,166 hereinafter Gillard) in view of Boyer et al. (US PAT. 5,410,546 hereinafter Boyer).

Regarding claims 2-3, Gillard differs from the claimed invention in not specifically teaches each bus packet being subject to CRC checking and the checking results being buffer-stored in order to be able to ascertain whether a data source packet transmitted in two or more bus packets has been transmitted without transmission errors, wherein a reference count reading is transmitted in each bus packet in order to check the completeness of the transmitted data, and in which comparison counting of the received data block is effected and, when the data block associated with the reference counter reading is received, the result of the comparison counting is compared with the reference counter reading and an error signal is output in the event of non-correspondence. However, Boyer discloses a data transferring device (figure 1) comprising a blocking/compression unit (105) compresses the data and transmits the data over bus (108) in packets to both Page CRC generator (101) for CRC generation and to page buffer memory (102) for temporary storage, and CRC checker (104) computes a CRC code for the entire page buffer as each byte is transmitted over bus (110) to block storage device (107), and may invoke appropriate error recovery procedures when it detects a compare error from CRC checker (col. 7 line 11 though col. 8 line 63). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the data formatter of Gillard in having each bus packet being subject to CRC checking and the checking results being buffer-stored in order to be able to ascertain whether a data source packet transmitted in two or more

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bus packets has been transmitted without transmission errors, wherein a reference count reading is transmitted in each bus packet in order to check the completeness of the transmitted data, and in which comparison counting of the received data block is effected and, when the data block associated with the reference counter reading is received, the result of the comparison counting is compared with the reference counter reading and an error signal is output in the event of non-correspondence, as per teaching by the data transfer device of Boyer, because it assures the integrity of the data at all times between receipt from the compression unit and transmission to the storage device, and permits these CRC computations and combinations to proceed as the data is received without loss of performance at the high data rates common in current high density tape storage subsystem (col. 5 lines 28-34).

Regarding claims 6-7, the limitations of the claims are rejected as the same reasons set forth in claims 2-3.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gillard et al. (US PAT. 5,404,166 hereinafter Gillard) in view of Lo et al. (US PAT. 6,324,178 hereinafter Lo).

Regarding claim 9, Gillard differs from the claimed invention in not specifically teaching data bus being designated according to the IEEE 1394 standard and the apparatus is part of data link layer module in the interface for this data bus. However, Lo teaches IEEE 1394 serial bus communication standard becoming a popular standard adopted by manufacturers of computer systems and peripheral components for its high speed and interconnection flexibilities (col. 1 lines 31-35). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Gillard in having data bus being designated according to

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the IEEE 1394 standard and the apparatus is part of data link layer module in the interface for this data bus, as per teaching of Lo, because it provides high speed and interconnection flexibilities.

Response to Arguments

9. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Machado et al. (US PAT. 5,517,631) disclose miniature disk drive having embedded sector servo with split data fields and automatic on-the-fly data block sequencing, wherein a programmable data sequencer transfers fixed length data blocks between variable length storage segments of a magnetic storage disk (abstract).

Fimoff et al. (US PAT. 5,563,920) discloses method of processing variable size blocks of data by storing numbers representing size of data blocks in a FIFO (abstract).

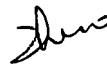
Best et al. (US PAT. 5,459,853) discloses efficient variable-block data storage system employing a staggered fixed-block-architecture array (abstract).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zhuo H. Li whose telephone number is 571-272-4183. The examiner can normally be reached on Mon - Fri 10:00am - 6:30pm..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sanjiv Shah can be reached on 571-272-4098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Zhuo H. Li 

Patent Examiner
August 2, 2007



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